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TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * * * * * * Welcome to STN International * * * * * * * * * * * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 JUL 12 BEILSTEIN enhanced with new display and select options, resulting in a closer connection to BABS
NEWS 4 AUG 02 IFIPAT/IFIUDB/IFICDB reloaded with new search and display fields
NEWS 5 AUG 02 CPlus and CA patent records enhanced with European and Japan Patent Office Classifications
NEWS 6 AUG 02 The Analysis Edition of STN Express with Discover! (Version 7.01 for Windows) now available
NEWS 7 AUG 27 BIOCOMMERCE: Changes and enhancements to content coverage
NEWS 8 AUG 27 BIOTECHABS/BIOTECHDS: Two new display fields added for legal status data from INPADOC
NEWS 9 SEP 01 INPADOC: New family current-awareness alert (SDI) available
NEWS 10 SEP 01 New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS 11 SEP 01 New display format, HITSTR, available in WPIDS/WPINDEX/WPIX
NEWS 12 SEP 27 STANDARDS will no longer be available on STN
NEWS 13 SEP 27 SWETSCAN will no longer be available on STN
NEWS 14 OCT 28 KOREAPAT now available on STN

NEWS EXPRESS JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004

NEWS HOURS STN Operating Hours Plus Help Desk Availability

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FILE 'HOME' ENTERED AT 13:47:06 ON 29 OCT 2004

=> file reg
COST IN U.S. DOLLARS

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 27 OCT 2004 HIGHEST RN 770693-70-4
DICTIONARY FILE UPDATES: 27 OCT 2004 HIGHEST RN 770693-70-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

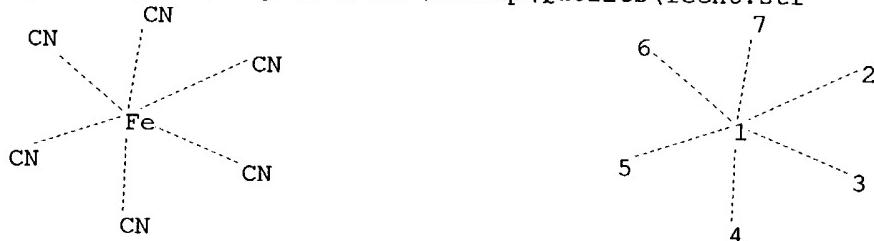
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

Uploading C:\Program Files\Stnexp\Queries\fecn6.str



chain nodes :

1 2 3 4 5 6 7

chain bonds :

1-6 1-7 1-2 1-3 1-4 1-5

exact/norm bonds :

1-6 1-7 1-2 1-3 1-4 1-5

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS

L1 STRUCTURE uploaded

=> is l1 sam

IS IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (>).

=> s l1 sam

SAMPLE SEARCH INITIATED 13:47:47 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 377 TO ITERATE

100.0% PROCESSED 377 ITERATIONS

50 ANSWERS

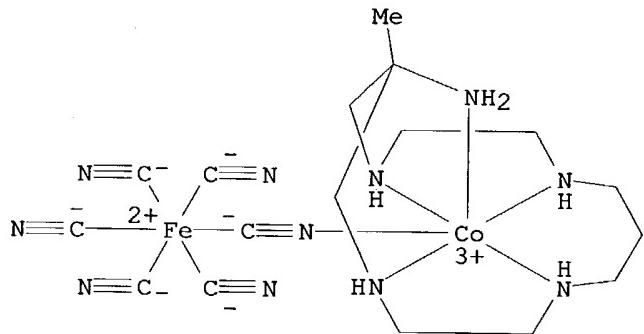
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 6376 TO 8704
PROJECTED ANSWERS: 2073 TO 3487

L2 50 SEA SSS SAM L1

=> d scan

L2 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Ferrate(1-), [μ -(cyano- κ C: κ N)]pentakis(cyano- κ C)[[rel-(1R,4R,8S,11S)-6-methyl-1,4,8,11-tetraazacyclotetradecan-6-amine- κ N1, κ N4, κ N6, κ N8, κ N11]cobaltate]- (9CI)
MF C17 H27 Co Fe N11
CI CCS, COM

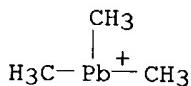


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

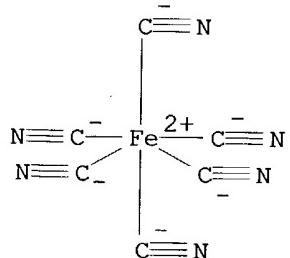
L2 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Plumbylium, trimethyl-, (OC-6-11)-hexakis(cyano- κ C)ferrate(4-)
(4:1), monohydrate (9CI)
MF C6 Fe N6 . 4 C3 H9 Pb . H2 O

CM 1

CM 2



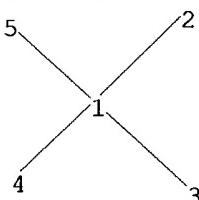
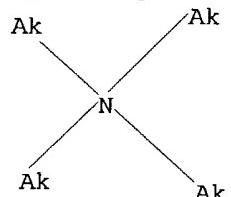
CM 3



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=>

Uploading C:\Program Files\Stnexp\Queries\nr4.str



chain nodes :

1 2 3 4 5

chain bonds :

1-5 1-2 1-3 1-4

exact/norm bonds :

1-5 1-2 1-3 1-4

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS

L3 STRUCTURE UPLOADED

=> s sss ful l1 and l3

FULL SEARCH INITIATED 13:51:05 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 7966 TO ITERATE

100.0% PROCESSED 7966 ITERATIONS
SEARCH TIME: 00.00.01

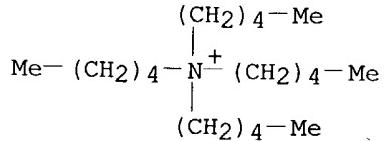
127 ANSWERS

L4 127 SEA SSS FUL L1 AND L3

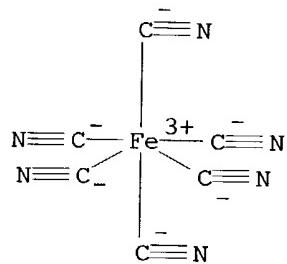
=> d scan

L4 127 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Stannylium, trimethyl-, N,N,N-tripentyl-1-pentanaminium
(OC-6-11)-hexakis(cyano-κC)ferrate(3-) (2:1:1) (9CI)
MF C20 H44 N . C6 Fe N6 . 2 C3 H9 Sn
CI COM

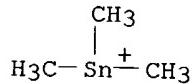
CM 1



CM 2



CM 3



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> d his

(FILE 'HOME' ENTERED AT 13:47:06 ON 29 OCT 2004)

| | |
|----|--|
| L1 | FILE 'REGISTRY' ENTERED AT 13:47:12 ON 29 OCT 2004 |
| | STRUCTURE uploaded |
| L2 | 50 S L1 SAM |
| L3 | STRUCTURE uploaded |
| L4 | 127 S SSS FUL L1 AND L3 |

| | | | |
|----------------------|--|------------|---------|
| => file caplus | | SINCE FILE | TOTAL |
| COST IN U.S. DOLLARS | | ENTRY | SESSION |
| FULL ESTIMATED COST | | 157.94 | 158.15 |

FILE 'CAPLUS' ENTERED AT 13:51:33 ON 29 OCT 2004
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FILE COVERS 1907 - 29 Oct 2004 VOL 141 ISS 19
FILE LAST UPDATED: 28 Oct 2004 (20041028/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 14

L5 104 L4

=> s 15 and (sensor or detector or electrode or electrochem? or mediat?)

115620 SENSOR

89471 SENSORS

144923 SENSOR

(SENSOR OR SENSORS)

186791 DETECTOR

123388 DETECTORS

235949 DETECTOR

(DETECTOR OR DETECTORS)

415074 ELECTRODE

313088 ELECTRODES

537606 ELECTRODE

(ELECTRODE OR ELECTRODES)

285178 ELECTROCHEM?

535083 MEDIAT?

L6 29 L5 AND (SENSOR OR DETECTOR OR ELECTRODE OR ELECTROCHEM? OR MEDIA T?)

=> d bib ab hitstr tot

L6 ANSWER 1 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:85750 CAPLUS

DN 138:313344

TI Hybrid molecular materials based upon organic π -electron donors and inorganic metal complexes. Conducting salts of bis(ethylenediseleno)tetrathiafulvalene (BEST) with the octahedral anions hexacyanoferrate(III) and nitroprusside

AU Clemente-Leon, Miguel; Coronado, Eugenio; Galan-Mascaros, Jose R.; Gimenez-Saiz, Carlos; Gomez-Garcia, Carlos J.; Fabre, Jean M.; Mousdis, G. A.; Papavassiliou, G. C.

CS Instituto de Ciencia Molecular, Universidad de Valencia, Dr. Moliner 50, Burjasot, 46100, Spain

SO Journal of Solid State Chemistry (2002), 168(2), 616-625
CODEN: JSSCBI; ISSN: 0022-4596

PB Elsevier Science

DT Journal

LA English

AB The synthesis, structure and phys. characterization of three new radical salts formed by the organic donor bis(ethylenediseleno)tetrathiafulvalene (BEDS-TTF or BEST) and the paramagnetic hexacyanoferrate(III) anion $[\text{Fe}(\text{CN})_6]^{3-}$ or the photochromic nitroprusside anion $[\text{Fe}(\text{CN})_5\text{NO}]^{2-}$ are reported: (BEST)₄[$\text{Fe}(\text{CN})_6$] (1), (BEST)₃[$\text{Fe}(\text{CN})_6$]₂·H₂O (2) and (BEST)₂[$\text{Fe}(\text{CN})_5\text{NO}$] (3). Salts 1 and 3 show a layered structure with alternating organic (β -type packing) and inorg. slabs. Salt 2 shows an original interpenetrated structure probably due to the unprecedented presence of (BEST)₂⁺ dications. The three salts are semiconductors although salt 1 exhibits a high room temperature conductivity and a semiconducting-semiconducting transition at .apprx.150 K which was attributed to a dimerization in the organic sublattice.

IT 14837-73-1, Tris(tetraethylammonium) hexacyanoferrate(3-)

RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for preparation of bis(ethylenediseleno)tetrathiafulvalene salts
with ferricyanide/nitroprusside)

RN 14837-73-1 CAPLUS

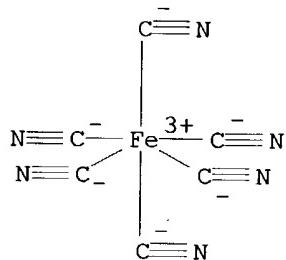
CN Ethanaminium, N,N,N-triethyl-, (OC-6-11)-hexakis(cyano- κ C)ferrate(3-)
(3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

CMF C6 Fe N6

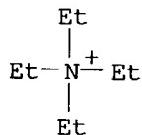
CCI CCS



CM 2

CRN 66-40-0

CMF C8 H2O N



RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:272346 CAPLUS

DN 137:14768

TI Structure and Magnetism of Heptanuclear Complexes Formed on Encapsulation
of Hexacyanoferrate(II) with the Mn(II) and Ni(II) Complexes of
1,4-Bis(2-pyridylmethyl)-1,4,7-triazacyclononane

AU Parker, Richard J.; Spiccia, Leone; Moubaraki, Boujema; Murray, Keith S.;
Hockless, David C. R.; Rae, A. David; Willis, Anthony C.

CS School of Chemistry, Monash University, Victoria, 3800, Australia

SO Inorganic Chemistry (2002), 41(9), 2489-2495

CODEN: INOCAJ; ISSN: 0020-1669

PB American Chemical Society

DT Journal

LA English

AB The reaction of $[\text{Mn}(\text{dmptacn})\text{OH}_2]^{2+}$ and $[\text{Ni}(\text{dmptacn})\text{OH}_2]^{2+}$ ($\text{dmptacn} = 1,4\text{-bis}(2\text{-pyridylmethyl})-1,4,7\text{-triazacyclononane}$) with each cyano ligand
on ferricyanide results in the assembly of heteropolynuclear cations
around the cyanometalate core and reduction of Fe^{III} to Fe^{II} . In
 $[\{\text{Mn}(\text{dmptacn})\text{CN}\}_6\text{Fe}]^{+}[\text{ClO}_4]^{-} \cdot 5\text{H}_2\text{O}$ (1) and
 $[\{\text{Ni}(\text{dmptacn})\text{CN}\}_6\text{Fe}]^{+}[\text{ClO}_4]^{-} \cdot 7\text{H}_2\text{O}$ (2), ferrocyanide is encapsulated

by either six MnII or NiII dmptacn moieties. These same products were obtained when ferrocyanide salts were used in the synthesis instead of ferricyanide. A binuclear complex, $\{[\text{Mn}(\text{dmptacn})_2\text{CN}]_2\text{ClO}_4\}_3$ (3), also was formed from KCN and $[\text{Mn}(\text{dmptacn})\text{OH}_2]^{2+}$. For both MnII and NiII, the use of the pentadentate dmptacn ligand facilitates the formation of discrete cations in preference to networks or polymeric structures. 1 Crystallizes in the trigonal space group R.hivin.3 with a 30.073(3), c 13.303(4) Å, and Z = 3 and is composed of heptanuclear $\{[\text{Mn}(\text{dmptacn})\text{CN}]_6\text{Fe}\}^{8+}$ cations whose charge is balanced by perchlorate counteranions. Weak H-bonding interactions between neighboring heptanuclear cations and some perchlorate counterions generate an infinite 1-dimensional chain of alternating $\{[\text{Mn}(\text{dmptacn})\text{CN}]_6\text{Fe}\}^{8+}$ and ClO_4^- ions running along the c-axis. Complex 3 crystallizes in the orthorhombic space group Pbcn with a 16.225(3), b 16.320(2), c 18.052(3) Å, and Z = 8 and is composed of binuclear $\{[\text{Mn}(\text{dmptacn})_2\text{CN}]_3\}^{3+}$ cations in which the cyano-bridged MnII centers are in a distorted trigonal prismatic geometry. Variable temperature magnetic susceptibility measurements revealed a weak ferromagnetic interaction between the paramagnetic MnII centers in 1, mediated either by the -NC-Fe-CN- bridging units or by Mn-NH \cdots ClO $_4$ \cdots NH-Mn intercluster pathways.

IT 14837-73-1, Tris(tetraethylammonium) hexacyanoferrate(3-)
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction with nickel bis(pyridylmethyl)triazacyclononane complex)

RN 14837-73-1 CAPLUS

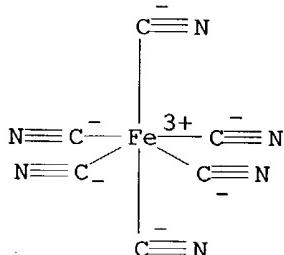
CN Ethanaminium, N,N,N-triethyl-, (OC-6-11)-hexakis(cyano- κ C)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

CMF C6 Fe N6

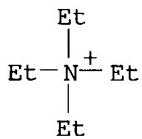
CCI CCS



CM 2

CRN 66-40-0

CMF C8 H20 N



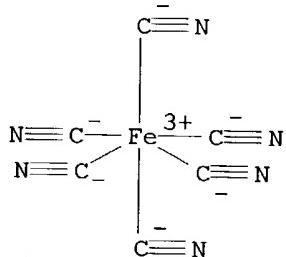
L6 ANSWER 3 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2002:199128 CAPLUS
 DN 137:14600
 TI **Mediation** of magnetic interactions in Prussian blue family
 AU Wasiutynski, T.; Balandz, M.; Szeglowski, Z.; Zielinski, P. M.
 CS H. Niewodniczanski Institute of Nuclear Physics, Krakow, 31-342, Pol.
 SO Polish Journal of Chemistry (2002), 76(2-3), 377-384
 CODEN: PJCHDQ; ISSN: 0137-5083
 PB Polish Chemical Society
 DT Journal
 LA English
 AB Results of the a.c. susceptibility and d.c. magnetization of the family ACo[Fe(CN)₆] for different cations A = Li, Na, K, Rb, Cs, NH₄, N(Et)₄ are presented. Differences in magnetic properties are found that can be attributed to an indirect interaction **mediated** by the cations. Two other compds.: A₂Ni(II)[Fe(II)(CN)₆] (A = K, Na) were also studied. The strong influence on magnetic properties due to alkaline cations was again observed
 IT 433259-54-2
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
 (**mediation** of magnetic interactions in Prussian blue family studied by a.c. magnetic susceptibility and d.c. magnetization)
 RN 433259-54-2 CAPLUS
 CN Ethanaminium, N,N,N-triethyl-, cobalt(2+)(OC-6-11)-hexakis(cyano-
 κC)ferrate(3-) (1:1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

CMF C6 Fe N6

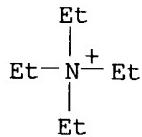
CCI CCS



CM 2

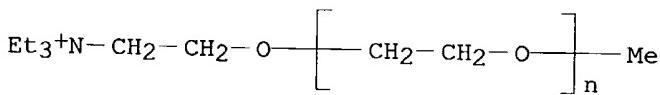
CRN 66-40-0

CMF C8 H20 N



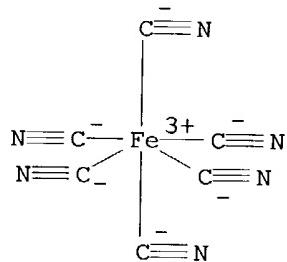
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 2001:381046 CAPLUS
 DN 135:143863
 TI Electron Self-Exchange Dynamics of Hexacyanoferrate in Redox Polyether Hybrid Molten Salts Containing Polyether-Tailed Counterions
 AU Kulesza, Pawel J.; Dickinson, Enders, V.; Williams, Mary Elizabeth; Hendrickson, Susan M.; Malik, Marcin A.; Miecznikowski, Krzysztof; Murray, Royce W.
 CS Kenan Laboratories of Chemistry, University of North Carolina, Chapel Hill, NC, 27599-3290, USA
 SO Journal of Physical Chemistry B (2001), 105(24), 5833-5838
 CODEN: JPCBFK; ISSN: 1089-5647
 PB American Chemical Society
 DT Journal
 LA English
 AB Hexacyanoferrate(III) is combined with a quaternary ammonium countercation consisting of triethylammonium connected to a poly(ethylene glycol) Me ether (MW 350) tail, to form a highly viscous room-temperature redox polyether hybrid melt (e.g., a molten salt) in which the concentration of hexacyanoferrate centers is 0.82M. Microelectrode voltammetry and potential step chronoamperometry in the undiluted melt give an apparent diffusion coefficient DAPP = 2.5 + 10-10 cm²/s at 20° that is interpreted as reflecting primarily the rate of electron self-exchange between Fe(II) and Fe(III) centers. A rate constant of kEX = 1.1 + 105 M-1 s-1 is derived from this DAPP, and from its temperature dependence, an activation energy barrier of 30 kJ/mol. kEX is in good agreement with results in fluid solns. At the same concentration (0.82M), but in aqueous solution, the (potassium salt) hexacyanoferrate species displays a DAPP of 4 + 10-6 cm²/s, which is interpreted as reflecting phys. transport of the hexacyanoferrate species. Transport of the hexacyanoferrate species is enormously plasticized in aqueous medium as opposed to the highly viscous polyether melt. Electronic spectra and ionic conductivity of the hybrid redox polyether melt are also reported.
 IT 351429-78-2P
 RL: PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); PRP (Properties); RCT (Reactant); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
 (electron self-exchange dynamics of hexacyanoferrate in redox polyether hybrid molten salts containing polyether-tailed counterions in chronoamperometry and voltammetry and electronic spectra and conductivity study)
 RN 351429-78-2 CAPLUS
 CN Ferrate(3-), hexakis(cyano- κ C)-, (OC-6-11)-, compd. with α -methyl- ω -[2-(triethylammonio)ethoxy]poly(oxy-1,2-ethanediyl) (1:3) (9CI) (CA INDEX NAME)
 CM 1
 CRN 220360-39-4
 CMF (C₂ H₄ O)_n C₉ H₂₂ N O
 CCI PMS



CM 2

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



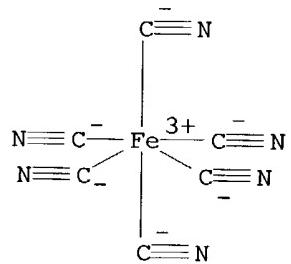
RE.CNT 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:12656 CAPLUS
DN 134:65598
TI Amperometric **sensor** for hydrogen peroxide and glucose determination
IN Lau, Kim King Tong; Slater, Jonathan Mark
PA Drew Scientific Limited, UK
SO PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 2001000865 | A2 | 20010104 | WO 2000-GB2504 | 20000629 |
| | WO 2001000865 | A3 | 20010913 | | |
| | W: CA, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 1194585 | A2 | 20020410 | EP 2000-940660 | 20000629 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| PRAI | GB 1999-15181 | A | 19990629 | | |
| | WO 2000-GB2504 | W | 20000629 | | |
| OS | MARPAT 134:65598 | | | | |
| AB | An amperometric sensor suitable for determining the concentration of hydrogen peroxide in a sample, said sensor comprising a ferricyanide compound which, in reduced form, functions as a mediator specific to hydrogen peroxide. | | | | |
| IT | 55066-68-7 313511-66-9 313511-73-8
313511-84-1 313511-88-5 313511-91-0
313511-94-3 313511-97-6 | | | | |
| | RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(glucose determination by amperometric sensor with ferricyanide compound as mediator and glucose oxidase) | | | | |
| RN | 55066-68-7 CAPLUS | | | | |
| CN | 1-Hexadecanaminium, N,N,N-trimethyl-, (OC-6-11)-hexakis(cyano-
κC) ferrate(3-) (3:1) (9CI) (CA INDEX NAME) | | | | |

CM 1

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



CM 2

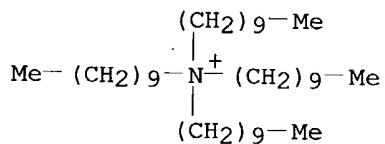
CRN 6899-10-1
CMF C19 H42 N

$\text{Me}_3^+\text{N}-\text{(CH}_2\text{)}_{15}\text{-Me}$

RN 313511-66-9 CAPLUS
CN 1-Decanaminium, N,N,N-tris(decyl)-, (OC-6-11)-hexakis(cyano- κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

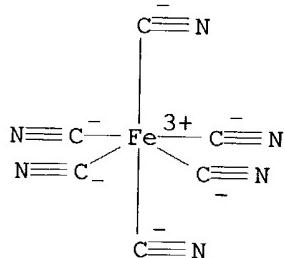
CM 1

CRN 48078-03-1
CMF C40 H84 N



CM 2

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



RN 313511-73-8 CAPLUS

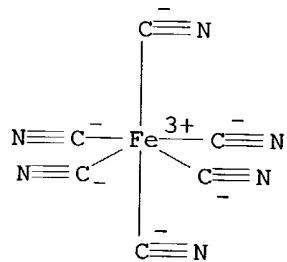
CN 1-Tetradecanaminium, N,N,N-trimethyl-, (OC-6-11)-hexakis(cyano- κ C)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

CMF C6 Fe N6

CCI CCS



CM 2

CRN 10182-92-0

CMF C17 H38 N



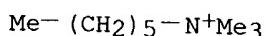
RN 313511-84-1 CAPLUS

CN 1-Hexanaminium, N,N,N-trimethyl-, (OC-6-11)-hexakis(cyano- κ C)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 16208-27-8

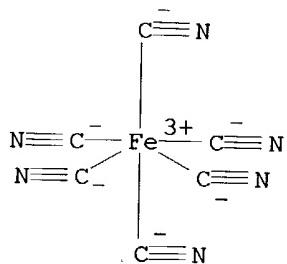
CMF C9 H22 N



CM 2

CRN 13408-62-3

CMF C6 Fe N6
CCI CCS



RN 313511-88-5 CAPLUS
CN 1-Heptanaminium, N,N,N-trimethyl-, (OC-6-11)-hexakis(cyano-
κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

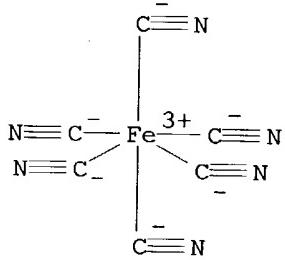
CM 1

CRN 17077-60-0
CMF C10 H24 N

Me-(CH₂)₆-N⁺Me₃

CM 2

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



RN 313511-91-0 CAPLUS
CN 1-Octanaminium, N,N,N-trimethyl-, (OC-6-11)-hexakis(cyano-
κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

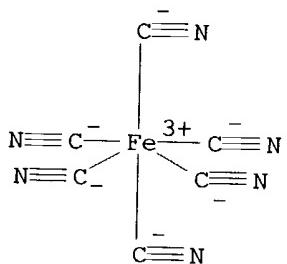
CM 1

CRN 15461-38-8
CMF C11 H26 N

Me-(CH₂)₇-N⁺Me₃

CM 2

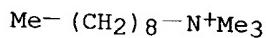
CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



RN 313511-94-3 CAPLUS
CN 1-Nonanaminium, N,N,N-trimethyl-, (OC-6-11)-hexakis(cyano- κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

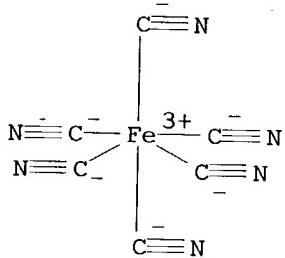
CM 1

CRN 35819-23-9
CMF C12 H28 N



CM 2

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



RN 313511-97-6 CAPLUS
CN 1-Decanaminium, N,N,N-trimethyl-, (OC-6-11)-hexakis(cyano- κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

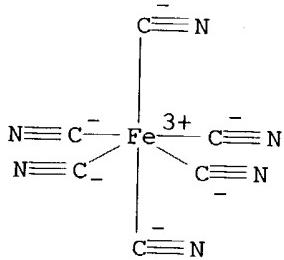
CM 1

CRN 15053-09-5
CMF C13 H30 N

$\text{Me}_3^+\text{N}-(\text{CH}_2)_9-\text{Me}$

CM 2

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



IT 313511-61-4P

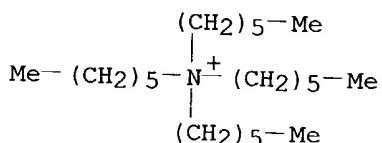
RL: ARU (Analytical role, unclassified); DEV (Device component use); PNU (Preparation, unclassified); ANST (Analytical study); PREP (Preparation);
USES (Uses)
(glucose determination by amperometric **sensor** with ferricyanide compound as **mediator** and glucose oxidase)

RN 313511-61-4 CAPLUS

CN 1-Hexanaminium, N,N,N-trihexyl-, (OC-6-11)-hexakis(cyano- κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

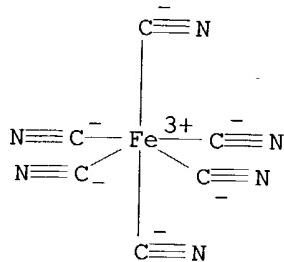
CM 1

CRN 20256-54-6
CMF C24 H52 N

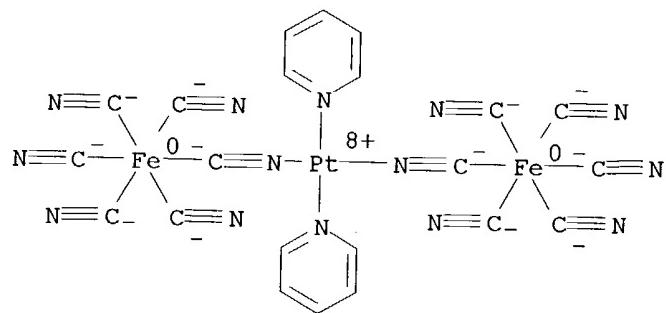


CM 2

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS

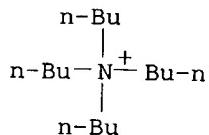


L6 ANSWER 6 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1999:346514 CAPLUS
 DN 131:130101
 TI Linear and Bent M(μ -CN)Pt(μ -CN)M Chains: Probes for Remote Metal-Metal Interactions
 AU Richardson, Guy N.; Brand, Udo; Vahrenkamp, Heinrich
 CS Institut fuer Anorganische und Analytische Chemie der Universitaet Freiburg, Freiburg, D-79104, Germany
 SO Inorganic Chemistry (1999), 38(13), 3070-3079
 CODEN: INOCAJ; ISSN: 0020-1669
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 131:130101
 AB Cyanide-bridged trinuclear complexes containing square-planar Pt at the center were synthesized and identified by structure detns. Their chemical building blocks were cis- and trans-PtL₂X₂, Cp(dppe)FeX, Cp(PPh₃)₂RuX (with X = Hal or CN), Pt(CN)₄²⁻, and Fe(CN)₆⁴⁻. Several of the intermediate dinuclear complexes were isolated and used for reference purposes. The mol. structures, the ν (CN) IR data, the cyclic voltammograms, and the UV-visible-near-IR spectra were used to probe the effects of the geometry at Pt (cis vs. trans), of cyanide-isocyanide isomerism (Pt(CN)₂ vs. Pt(NC)₂), of the nature and ligation of the terminal metals (Fe vs. Ru), and of one- or two-electron oxidation. The redox properties and the observed intervalence transfers indicate that there is electronic communication between the outer metal atoms along the linear M-CN chains containing trans-configured Pt, but not along the bent chains containing cis-configured Pt.
 IT 233587-04-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and remote metal-metal interactions in linear and bent cyanide-bridged platinum-containing chains)
 RN 233587-04-7 CAPLUS
 CN 1-Butanaminium, N,N,N-tributyl-, stereoisomer of [bis(pyridine)platinate]bis[μ -(cyano- κ C: κ N)]decakis(cyano- κ C)diferrate(4-) (4:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 233587-03-6
 CMF C22 H10 Fe2 N14 Pt
 CCI CCS



CM 2

CRN 10549-76-5
CMF C16 H36 N



IT 14589-06-1

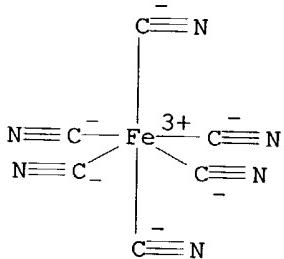
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of cyanide-bridged di- and trinuclear platinum-containing chains)

RN 14589-06-1 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano- κ C)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

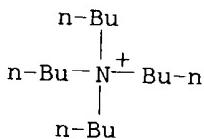
CM 1

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



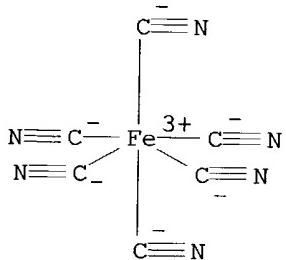
CM 2

CRN 10549-76-5
CMF C16 H36 N



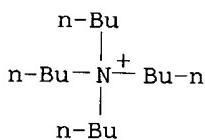
RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:660191 CAPLUS
 DN 129:322680
 TI **Electrochemical** redox reactions studied in frozen tetrabutylammonium halide hydrates
 AU Opallo, Marcin
 CS Institute of Physical Chemistry, Polish Academy of Sciences, Warsaw, 01-224, Pol.
 SO Journal of Solid State Electrochemistry (1998), 2(5), 347-354
 CODEN: JSSEFS; ISSN: 1432-8488
 PB Springer-Verlag
 DT Journal
 LA English
 AB The **electrochem.** redox reactions: $\text{Fe}(\text{CN})_{64-} -e^- \leftrightarrow \text{Fe}(\text{CN})_{63-}$, $\text{Ru}(\text{NH}_3)_{63+} + e^- \leftrightarrow \text{Ru}(\text{NH}_3)_{62+}$ and $\text{Fc}(\text{CH}_2\text{OH})_2 - e^- \leftrightarrow \text{Fc}(\text{CH}_2\text{OH})_2^{+}$ (**Fc**-ferrocene) were investigated in tetrabutylammonium halide hydrates at temps. below and above the electrolyte m.p. They were studied by cyclic voltammetry, potential step chronoamperometry and impedance spectroscopy. Freezing of the electrolyte affects both the shape and position of the cyclic voltammogram on the potential scale. Also the shapes of the current-time relationship and the impedance spectra change at temps. below the m.p. It has been proposed that this behavior is caused by slow transport of the reactant and the heterogeneous nature of the electrolyte. The activation energies of reactant transport are about four times larger in frozen electrolytes than those in liquid. It has been concluded that reactant transport is restricted to the intergrain space of the electrolyte.
 IT 14589-06-1
 RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
 (formation by reaction of $\text{K}_3\text{Fe}(\text{CN})_6$ with tetrabutylammonium fluoride in CH_2Cl_2)
 RN 14589-06-1 CAPLUS
 CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano- κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 13408-62-3
 CMF C6 Fe N6
 CCI CCS



CM 2

CRN 10549-76-5
CMF C16 H36 N



RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L6 ANSWER 8 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1998:505362 CAPLUS
 DN 129:257226
 TI Composite biosensor for sulfite assay. Use of water-insoluble hexacyanoferrate(III) salts as electron-transfer **mediators**
 AU Svitel, Juraj; Stredansky, Miroslav; Pizzariello, Andrea; Miertus, Stanislav
 CS POLY-Tech, Trieste, I-34012, Italy
 SO Electroanalysis (1998), 10(9), 591-596
 CODEN: ELANEU; ISSN: 1040-0397
 PB Wiley-VCH Verlag GmbH
 DT Journal
 LA English
 AB Water-insol. salts of hexacyanoferrate(III) and cationic surface active agents were synthesized and used as electron-**mediators** for sulfite oxidase. The biosensor was prepared from a composite consisting of modified graphite (50% weight/weight) and n-eicosane (50% weight/weight). Graphite was modified with **mediators** or with both **mediator** and sulfite oxidase for surface- and bulk-modified **electrode**, resp. The main advantage of biosensors with insol. **mediators** is the possibility to operate at a potential of 0 mV (vs. SCE), thus less interferences are expected, in comparison to soluble hexacyanoferrate(III) where a potential of +300 mV must be used. The maximum sensitivity $7.8 \pm 10^{-4} \mu\text{A}/\mu\text{M}$ was obtained for bulk-modified biosensor, prepared from graphite modified with 5% weight/weight of hexadecyltrimethylammonium hexacyanoferrate(III) and 1.25 units/mg (of graphite) of sulfite oxidase. The sensitivity of the biosensor decreased to 24% of the initial sensitivity after one month storage in dry state at ambient temperature. The use of trehalose as an enzyme stabilization agent has led to the improved stability: 40% of the initial stability was retained after one month.
- IT 55066-68-7P 114737-22-3P 213401-13-9P

213401-19-5P 213401-23-1P 213401-33-3P

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(water-insol. hexacyanoferrate(III) salts as electron-transfer
mediators for sulfite oxidase in composite biosensor for sulfite
assay)

RN 55066-68-7 CAPLUS

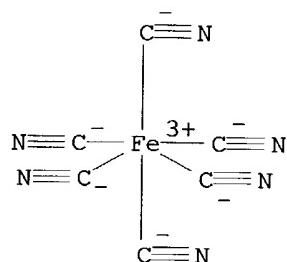
CN 1-Hexadecanaminium, N,N,N-trimethyl-, (OC-6-11)-hexakis(cyano-
κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

CMF C6 Fe N6

CCI CCS



CM 2

CRN 6899-10-1

CMF C19 H42 N

Me₃N+(CH₂)₁₅-Me

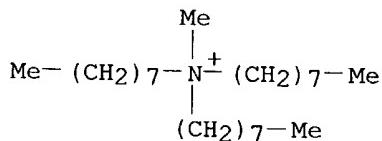
RN 114737-22-3 CAPLUS

CN 1-Octanaminium, N-methyl-N,N-dioctyl-, (OC-6-11)-hexakis(cyano-
κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 22061-11-6

CMF C25 H54 N

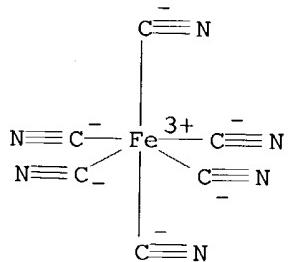


CM 2

CRN 13408-62-3

CMF C6 Fe N6

CCI CCS



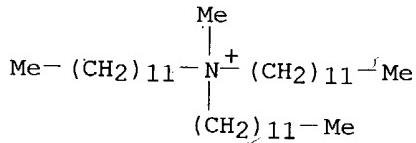
RN 213401-13-9 CAPLUS

CN 1-Dodecanaminium, N,N-didodecyl-N-methyl-, (OC-6-11)-hexakis(cyano- κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 45313-91-5

CMF C37 H78 N

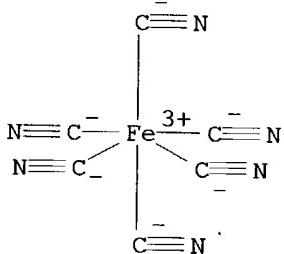


CM 2

CRN 13408-62-3

CMF C6 Fe N6

CCI CCS



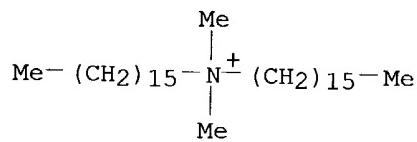
RN 213401-19-5 CAPLUS

CN 1-Hexadecanaminium, N-hexadecyl-N,N-dimethyl-, (OC-6-11)-hexakis(cyano- κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 42187-36-0

CMF C34 H72 N

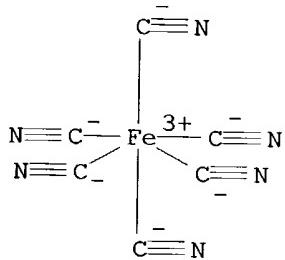


CM 2

CRN 13408-62-3

CMF C6 Fe N6

CCI CCS



RN 213401-23-1 CAPLUS

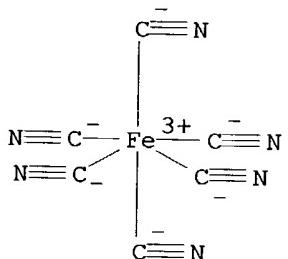
CN 1-Dodecanaminium, N-dodecyl-N,N-dimethyl-, (OC-6-11)-hexakis(cyano- κ C)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

CMF C6 Fe N6

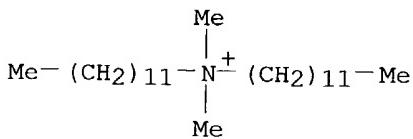
CCI CCS



CM 2

CRN 13146-86-6

CMF C26 H56 N

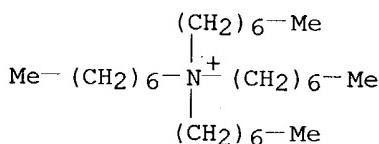


RN 213401-33-3 CAPLUS

CN 1-Heptanaminium, N,N,N-triheptyl-, (OC-6-11)-hexakis(cyano-
κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

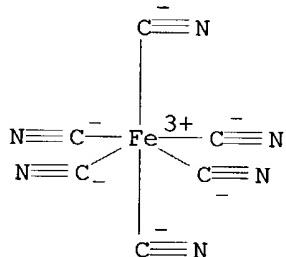
CM 1

CRN 35414-25-6
CMF C28 H60 N



CM 2

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



L6 ANSWER 9 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:204058 CAPLUS

DN 129:33695

TI **Electrochemical** stability of redox active ions and molecules in liquid and frozen stoichiometric electrolytes

AU Opallo, Marcin

CS Institute of Physical Chemistry, Polish Academy of Sciences, ul. Kasprzaka 44/52, Warsaw, 01-224, Pol.

SO Journal of Electroanalytical Chemistry (1998), 446(1-2), 39-45
CODEN: JECHE; ISSN: 0368-1874

PB Elsevier Science S.A.

DT Journal

LA English

AB The **electrochem.** stability of selected redox active ions and mols. has been studied at temps. around the m.p. of the stoichiometric electrolyte by cyclic voltammetry. Tetrabutylammonium cation halide hydrates: $(\text{C}_4\text{H}_9)_4\text{N}^+\text{X}^-\text{H}_2\text{O}$ ($\text{X}=\text{F}, \text{Cl}, \text{Br}, 30 < n < 32$) were selected as

electrolytes. As in a liquid electrolyte, the highly charged form of a given redox couple is more stable, however this effect is more pronounced. No substantial shift of redox potential at temps. around the m.p. of the electrolyte is observed in the case of the Fe(CN)₆³⁻/Fe(CN)₆⁴⁻ and Ru(NH₃)₆³⁺/Ru(NH₃)₆²⁺ redox systems. This is not the case of Fc(CH₂OH)₂^{+/0}/Fc(CH₂OH)₂ (Fc, ferrocene). At lower temps. the direction of temperature dependence of the redox potential is similar, with the slope a few times larger than that observed in the liquid electrolyte. An interpretation of this effect based on the change in redox reaction entropy upon freezing of the electrolyte was proposed. The difference between the temperature dependence of the redox potential of the Fe(CN)₆³⁻/Fe(CN)₆⁴⁻ redox system in tetra-Bu and tetra-Me cation hydrates was also discussed.

IT 128304-06-3, Tetrabutylammonium ferricyanide

RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(redox potential of system Fe(cn)₆³⁻/Fe(CN)₆²⁻ in absence of K⁺ ions in liquid and frozen stoichiometric tetrabutylammonium halide hydrates electrolytes)

RN 128304-06-3 CAPLUS

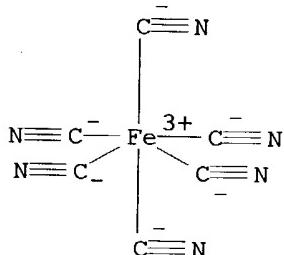
CN 1-Butanaminium, N,N,N-tributyl-, hydrogen (OC-6-11)-hexakis(cyano-κC)ferrate(3-) (1:2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

CMF C6 Fe N6

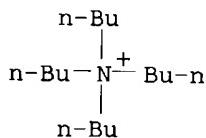
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:949130 CAPLUS

DN 124:100509

TI Phase transitions in new BEDT-TTF κ-phase salts with hexacyanometalate anions [M(CN)₆³⁻ M = Co(III) and Fe(III)]

AU Le Magueres, Pierre; Ouahab, Lahcene; Conan, Nathalie; Gomez-Garcia, Carlos J.; Delhaes, Pierre; Even, Jacky; Bertault, Marcel
 CS Lab. Chim. Solide Inorganique Mol., Univ. Rennes I, Rennes, F-35042, Fr.
 SO Solid State Communications (1996), 97(1), 27-32
 CODEN: SSCO4; ISSN: 0038-1098
 PB Elsevier
 DT Journal
 LA English
 AB The preparation, crystal structure determination and phys. properties of the compds.

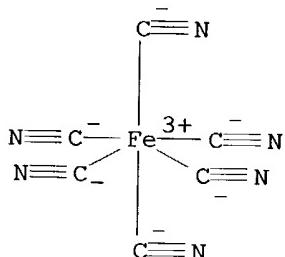
formulated as $k\text{-}(\text{BEDT-TTF})_4(\text{Et}_4\text{N})\text{M}(\text{CN})_6 \cdot 3\text{H}_2\text{O}$ ($\text{M} = \text{CoIII}$ and FeIII) are presented. Organic ET layers with packing of orthogonalized dimers containing charge carriers and inorg. octahedral hexacyanometalate anions with diamagnetic or paramagnetic transition metals coexist in the title compds. Two phase transitions occurring resp. at 150 K and in the 230-260 K range were evidenced by magnetic (SQUID and ESR), DSC measurements. However, preliminary x-ray studies revealed a structural change around 240 K only.

IT 14837-73-1, Tris(tetraethylammonium) hexacyanoferate(3-)
 RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
 (electrochem. oxidation of BEDT-TTF on platinum in acetonitrile-dichloromethane containing)

RN 14837-73-1 CAPLUS
 CN Ethanaminium, N,N,N-triethyl-, (OC-6-11)-hexakis(cyano- κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

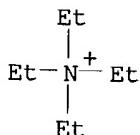
CM 1

CRN 13408-62-3
 CMF C6 Fe N6
 CCI CCS



CM 2

CRN 66-40-0
 CMF C8 H20 N



IT 172799-64-3P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
 (electrochem. preparation and crystal structure and phase

transition of)

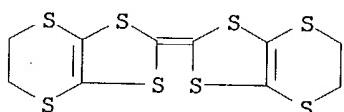
RN 172799-64-3 CAPLUS

CN Ethanaminium, N,N,N-triethyl-, salt with 2-(5,6-dihydro-1,3-dithiolo[4,5-b][1,4]dithiin-2-ylidene)-5,6-dihydro-1,3-dithiolo[4,5-b][1,4]dithiin (OC-6-11)-hexakis(cyano- κ C)ferrate(3-) (1:4:1), trihydrate (9CI) (CA INDEX NAME)

CM 1

CRN 66946-48-3

CMF C10 H8 S8



CM 2

CRN 172799-63-2

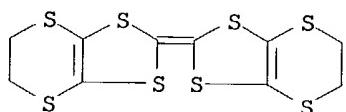
CMF C10 H8 S8 . 1/2 C8 H20 N . 1/2 C6 Fe N6

CM 3

CRN 82428-14-6

CMF C10 H8 S8

CCI RIS

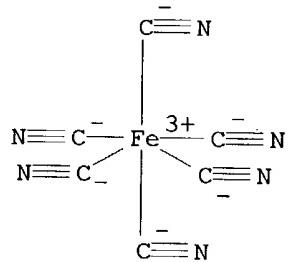


CM 4

CRN 13408-62-3

CMF C6 Fe N6

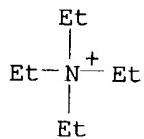
CCI CCS



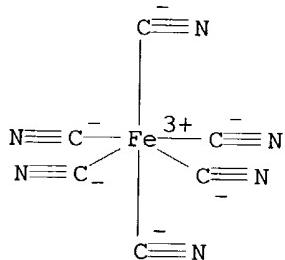
CM 5

CRN 66-40-0

CMF C8 H20 N

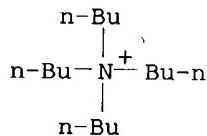


L6 ANSWER 11 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1993:680829 CAPLUS
 DN 119:280829
 TI Self-assembled monolayers in organic solvents: **electrochemistry**
 at alkanethiolate-coated gold in propylene carbonate
 AU Groat, Kimberly A.; Creager, Stephen E.
 CS Dep. Chem., Indiana Univ., Bloomington, IN, 47405, USA
 SO Langmuir (1993), 9(12), 3668-75
 CODEN: LANGD5; ISSN: 0743-7463
 DT Journal
 LA English
 AB Alkanethiolate monolayers with excellent barrier properties can be formed and maintained on gold **electrodes** in the nonaq. solvent propylene carbonate. The layers are most stable when alkanethiol is present in the propylene carbonate solution and when the potential is held between +0.50 and -0.70 V vs. Ag/AgCl/saturated KCl. The ability to work in a nonaq. solvent has enabled study of several redox-active probe mols. that have not previously been studied at alkanethiolate-coated **electrodes**. Specifically, studies on 3 ferrocene derivs. (ferrocene, decamethylferrocene, and [(trimethylammonio)methyl]ferrocene) and 3 organic redox **mediators** (tetracyanoquinodimethane, N,N,N',N'-tetramethylphenylenediamine, and N,N'-dimethylviologen) were carried out. Two complex metal ions (hexacyanoferrate(III) and hexaammineruthenium(III)) were also studied to facilitate comparison with earlier work in water. A weak correlation exists between the rate of interfacial electron transfer at the coated **electrodes** and the homogeneous electron self-exchange rates of the redox-active probe mols. The correlation is strongest within structurally homologous ferrocene derivs. and is weakest when comparing probe mols. of very different structure. There is no apparent correlation between **electrochem** reactivity and mol. size, suggesting that size exclusion is not a determining factor for **electrochem**. at alkanethiolate-coated **electrodes**. There is however a correlation with mol. charge, suggesting that electrostatic effects may be important.
 IT 14589-06-1
 RL: PROC (Process)
 (voltammetry of, on alkanethiolate-coated gold in propylene carbonate, barrier properties in relation to)
 RN 14589-06-1 CAPLUS
 CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano-
 κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 13408-62-3
 CMF C6 Fe N6
 CCI CCS



CM 2

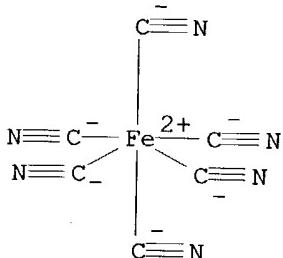
CRN 10549-76-5
 CMF C16 H36 N



L6 ANSWER 12 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1993:89352 CAPLUS
 DN 118:89352
 TI Incorporation of anionic species in organoclay-modified **electrodes**
 AU Falaras, Polycarpos; Petridis, Dimitris
 CS Natl. Cent. Sci. Res. "Demokritos", Aghia Paraskevi, 153 10, Greece
 SO Journal of Electroanalytical Chemistry (1992), 337(1-2), 229-39
 CODEN: JECHE5
 DT Journal
 LA English
 AB Clay-modified **electrodes** coated with cetyltrimethylammonium bromide present a particularly interesting chemical affinity towards anionic species. Incorporation and binding of electroactive anions such as Fe(CN)64-, Mo(CN)84- and Fe(C2O4)33- from aqueous solns. as dilute as 10-7M has been observed. Cyclic voltammetry shows that the peak potentials of bound species shift in the neg. direction compared with the corresponding values of free diffusing species.
 IT 146025-61-8D, solid solns. with potassium hexacyanoferrate
 RL: PRP (Properties)
 (sodium montmorillonite-modified graphite **electrode** treated with, cyclic voltammetry study of incorporation of electroactive anions in relation to)
 RN 146025-61-8 CAPLUS
 CN 1-Hexadecanaminium, N,N,N-trimethyl-, (OC-6-11)-hexakis(cyano-C)ferrate(4-) (4:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-63-4
 CMF C6 Fe N6
 CCI CCS



CM 2

CRN 6899-10-1
CMF C19 H42 N

$\text{Me}_3^+\text{N}-\text{(CH}_2\text{)}_{15}-\text{Me}$

L6 ANSWER 13 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:461987 CAPLUS

DN 117:61987

TI Ethanol **sensor** using alcohol dehydrogenase

IN Shiiki, Mikio; Nanba, Akira

PA Yamaguchi-Ken, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

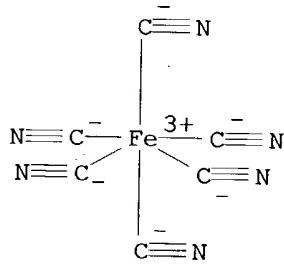
LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|--------|----------|-----------------|----------|
| PI | JP 04070558 | A2 | 19920305 | JP 1990-181583 | 19900711 |
| | JP 07052177 | B4 | 19950605 | | |
| PRAI | JP 1990-181583 | | 19900711 | | |
| AB | The EtOH sensor consists of a reference electrode and an enzyme- and an electrode (sic) acceptor-modified electrode containing an electrode agent of a mixture of Acetobacter cell membrane-binding alc. dehydrogenase and a hydrophobic electron acceptor prepared from a water-soluble ferricyanide and cationic, amphoteric, or nonionic surfactant. The electron acceptor is immobilized as the electrode agent by simply mixing with an organic binder. Thus, a sensor using reaction product of K ferricyanide and hexadecyltrimethylammonium bromide showed short-time response and gave an excellent linearity in calibration. | | | | |
| IT | 55066-68-7 | | | | |
| | RL: ANST (Analytical study)
(ethanol sensor using electrodes containing electron acceptor, and alc. dehydrogenase) | | | | |
| RN | 55066-68-7 | CAPLUS | | | |
| CN | 1-Hexadecanaminium, N,N,N-trimethyl-, (OC-6-11)-hexakis(cyano- κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME) | | | | |

CM 1

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



CM 2

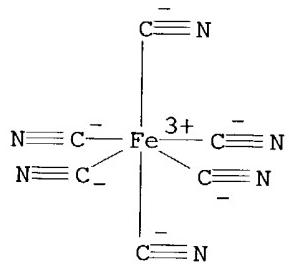
CRN 6899-10-1
CMF C19 H42 N

$\text{Me}_3\text{N}^+(\text{CH}_2)_5\text{Me}$

L6 ANSWER 14 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1991:194684 CAPLUS
 DN 114:194684
 TI Steady-state voltammetry with microelectrodes: determination of heterogeneous charge transfer rate constants for metalloporphyrin complexes
 AU Zhang, Y.; Baer, C. D.; Camaioni-Neto, C.; O'Brien, P.; Sweigart, D. A.
 CS Dep. Chem., Brown Univ., Providence, RI, 02912, USA
 SO Inorganic Chemistry (1991), 30(8), 1682-5
 CODEN: INOCAJ; ISSN: 0020-1669
 DT Journal
 LA English
 AB Voltammetric studies with platinum disk microelectrodes having diams. in the range 1-25 μm have been used under steady-state conditions (slow sweep rates) to determine the heterogeneous charge transfer rate consts. for the reduction of a series of metalloporphyrin complexes in dichloromethane and dimethyl sulfoxide solvents. The complexes include $\text{Fe}(\text{TPP})(\text{N-MeIm})_2^+$, $\text{Fe}(\text{OEP})(\text{N-MeIm})_2^+$, $\text{Fe}(\text{TPP})(\text{HIm})_2^+$, $\text{Fe}(\text{TPP})(\text{py})_2^+$, $\text{Mn}(\text{p-ClTPP})(\text{DMSO})_2^+$, and $\text{Zn}(\text{TPP})$ (H_2TPP = tetraphenylporphyrin, N-MeIm = N-methylimidazole). A comparison is made to previously reported charge transfer rate consts. for these metalloporphyrins, which were determined by cyclic voltammetry with conventional **electrodes** (Nicholson method). In each case the rate constant obtained from the steady-state expts. is much larger than that previously published and this discrepancy is ascribed to resistance and charging current distortions present with conventional cyclic voltammetry in organic solvents, especially relatively nonpolar ones. In polar media such as water or methanol, it is shown that the two methods yield the same kinetic parameters for the reduction of ferricyanide.
 IT 14837-73-1
 RL: PRP (Properties)
 (electrochem. reduction of ferricyanide ions in methanol containing, of platinum microelectrode)
 RN 14837-73-1 CAPLUS
 CN Ethanaminium, N,N,N-triethyl-, (OC-6-11)-hexakis(cyano- κ C) ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

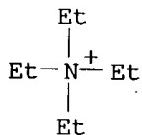
CM 1

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



CM 2

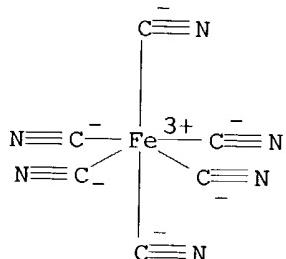
CRN 66-40-0
CMF C8 H20 N



L6 ANSWER 15 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:13823 CAPLUS
DN 114:13823
TI An interpretation of the formal potential for the ferricyanide/ferrocyanide couple as a function of solvent composition
AU Noftle, Ronald E.; Pletcher, Derek
CS Dep. Chem., Wake Forest Univ., Winston-Salem, NC, 27109, USA
SO Journal of Electroanalytical Chemistry and Interfacial Electrochemistry (1990), 293(1-2), 273-7
CODEN: JEIEBC; ISSN: 0022-0728
DT Journal
LA English
AB The formal potentials of the $\text{Fe}(\text{CN})_{63-}/\text{Fe}(\text{CN})_{64-}$ system are reported for propylene carbonate-H₂O and MeCN-H₂O mixts. as a function of the solvent composition. The results are discussed in terms of hydration of $\text{Fe}(\text{CN})_{64-}$ and $\text{Fe}(\text{CN})_{63-}$.
IT 128304-06-3, Tetrabutylammonium ferricyanide
RL: PRP (Properties)
(formal potential for redox coupling containing ferricyanide and)
RN 128304-06-3 CAPLUS
CN 1-Butanaminium, N,N,N-tributyl-, hydrogen (OC-6-11)-hexakis(cyano- κ C)ferrate(3-) (1:2:1) (9CI) (CA INDEX NAME)

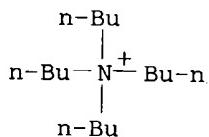
CM 1

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



CM 2

CRN 10549-76-5
 CMF C16 H36 N



L6 ANSWER 16 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1990:206531 CAPLUS
 DN 112:206531
 TI Ion-solvent interactions in mixtures of N-methyl-2-pyrrolidinone and N-methyl-2-thiopyrrolidinone
 AU Mayrhofer, Wolfgang; Gritzner, Gerhard
 CS Inst. Chem. Technol. Anorg. Stoffe, Johannes Kepler Univ., Linz, A-4040, Austria
 SO Journal of the Chemical Society, Faraday Transactions (1990), 86(5), 823-8
 CODEN: JCFTEV; ISSN: 0956-5000
 DT Journal
 LA English
 AB **Electrochem.** measurements of hard, borderline and soft cations such as Li⁺, Na⁺, K⁺, Tl⁺, Cu⁺, Ag⁺ and Cd²⁺ as well as studies on the redox behavior of oxygen, perylene and tetrabutylammonium hexacyanoferrate have been carried out in mixts. of the hard oxygen donor solvent N-methyl-2-pyrrolidinone and the soft sulfur donor solvent N-methyl-2-thiopyrrolidinone. Soft cations were found to be strongly stabilized by N-methyl-2-thiopyrrolidinone, and significant changes in the redox potentials to more pos. values could be observed only in solns. rich in N-methyl-2-pyrrolidinone. The opposite effect was observed for hard cations. These cations interacted strongly with N-methyl-2-pyrrolidinone, and the redox potentials remained more or less constant until a considerable excess of N-methyl-2-thiopyrrolidinone appeared. The behavior of the redox systems, which included anionic species, namely O₂/O₂⁻ and F(CN)₆3-/Fe(CN)₆4- was only slightly affected by changes in the solvent composition Gibbs energies of transfer from N-methyl-2-pyrrolidinone into the solvent mixts. for Li⁺, Na⁺, K⁺, Cu⁺, Ag⁺, Tl⁺ and Cd²⁺ were calculated from the **electrochem.** data on the basis of the bis(biphenyl)chromium uptake. In addition to the studies on the changes in redox potentials, the solvent-induced shifts of the visible spectra of the solvatochromic dyes acetylacetone(tetramethylethyldiamine)copper(II) perchlorate, bis(cyano)bis(1,10-phenanthroline)iron(II), bis(cyano)bis(3,4,7,8-tetramethyl-1,10-phenanthroline)iron(II) and 2,6-diphenyl-4-(2,4,6-triphenyl-1-pyridino)phenoxide were investigated. The results are interpreted on the basis of changes in the Lewis-type donor and acceptor

properties of the solvent mixts. including the principle of hard and soft acids and bases.

IT 53682-43-2

RL: RCT (Reactant); RACT (Reactant or reagent)
(reduction of, **electrochem.**, in methylpyrrolidinone-methylthiopyrrolidinone mixts.)

RN 53682-43-2 CAPLUS

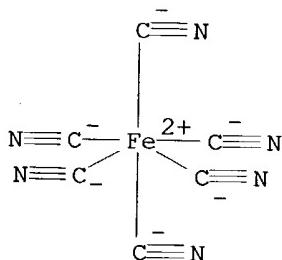
CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano-C)ferrate(4-)(4:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-63-4

CMF C6 Fe N6

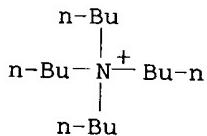
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



L6 ANSWER 17 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:127573 CAPLUS

DN 112:127573

TI Alkylammonium and pyridinium group-containing polypyrroles, a new class of electronically conducting anion-exchange polymers

AU Cosnier, S.; Deronzier, A.; Moutet, J. C.; Roland, J. F.

CS Lab. Electrochim. Org. Photochim. Redox, Univ. Joseph Fourier, Grenoble, 38041, Fr.

SO Journal of Electroanalytical Chemistry and Interfacial Electrochemistry (1989), 271(1-2), 69-81

CODEN: JEIEBC; ISSN: 0022-0728

DT Journal

LA English

AB Polypyrrole films containing alkylammonium and pyridinium groups were deposited on Pt and glassy C **electrode** surfaces by oxidative electropolymer. of N-substituted pyrrole monomers. These new functionalized polypyrroles show an improved and potential-independent anion-exchange behavior, as compared to the regular polypyrrole. They partition ferricyanide ions strongly from organic and aqueous electrolytes and

a

stable **electrochem.** reaction of the trapped anions can be observed. Perturbations of the potential of the $\text{Fe}(\text{CN})_{63-}/4-$ redox ions bound to the polymers are discussed in terms of electrostatic and charge-transfer interactions with ammonium and pyridinium moieties. Organic and inorg. anions can also be trapped effectively in these electronically conducting anion-exchange polymers.

IT 14589-06-1

RL: PROC (Process)

(incorporation of, in polymer based on pyrrole derivative)

RN 14589-06-1 CAPLUS

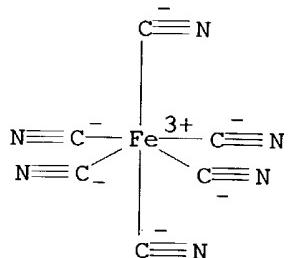
CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano- κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

CMF C6 Fe N6

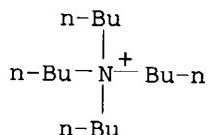
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



L6 ANSWER 18 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1989:68563 CAPLUS

DN 110:68563

TI The ferro/ferricyanide couple in an aluminum chloride-1-methyl-3-ethylimidazolium chloride ambient-temperature molten salt

AU Das, B.; Carlin, R.; Osteryoung, Robert A.

CS Dep. Chem., State Univ. New York, Buffalo, NY, 14214, USA

SO Inorganic Chemistry (1989), 28(3), 421-6

CODEN: INOCAJ; ISSN: 0020-1669

DT Journal

LA English

AB $(\text{Bu}_4\text{N})_3\text{Fe}(\text{CN})_6$ was prepared and studied in the 1-methyl-3-ethylimidazolium chloride-AlCl₃ (ImCl-AlCl₃) ambient-temperature molten salt solvent. The voltammetry and UV-visible spectroscopy of $(\text{Bu}_4\text{N})_3\text{Fe}(\text{CN})_6$ were compared to those of $\text{K}_3\text{Fe}(\text{CN})_6$ in H₂O and shown to be identical. $(\text{Bu}_4\text{N})_3\text{Fe}(\text{CN})_6$ is insol. in the basic ImCl-AlCl₃ melt but is soluble in the acidic melt.

However, the Fe(CN)₆³⁻ reacts to form Fe(CN)₆⁴⁻, i.e., the oxidation potential of the ferro/ferricyanide couple is sufficiently pos. to oxidize chloride from AlCl₄⁻. Spectral shifts observed for the molten salt suggest that AlCl₃ forms adducts with Fe(CN)₆⁴⁻, which accounts for the large pos. shift in the oxidation potential of the ferro/ferricyanide redox couple relative to that in H₂O. The ferro/ferricyanide couple could be examined voltammetrically at a C, but not at a Pt, **electrode** since the AlCl₄⁻ oxidation is significantly more irreversible on the former than the latter, and the former potential was estimated as +2.30 V vs. an Al reference

in

the 1.5:1 molten salt.

IT

53682-43-2

RL: RCT (Reactant); RACT (Reactant or reagent)
(**electrochem.** and kinetics of redox reaction of, in aluminum chloride-imidazolium chloride solvent)

RN

53682-43-2 CAPLUS

CN

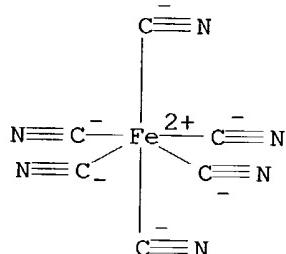
1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano-C)ferrate(4-)
(4:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-63-4

CMF C6 Fe N6

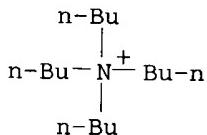
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



IT **14589-06-1P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and **electrochem.** and kinetics of redox reaction of,
in aluminum chloride-imidazolium chloride solvent)

RN

14589-06-1 CAPLUS

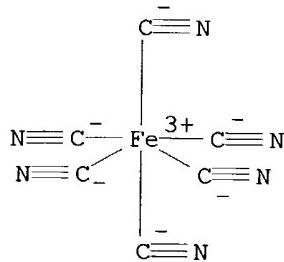
CN

1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano-C)ferrate(3-)
(3:1) (9CI) (CA INDEX NAME)

CM 1

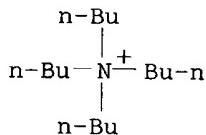
CRN 13408-62-3

CMF C6 Fe N6
CCI CCS



CM 2

CRN 10549-76-5
CMF C16 H36 N



L6 ANSWER 19 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1988:228323 CAPLUS
DN 108:228323
TI Electric properties of inert polymer films doped with electrolytes
AU Zhao, Junguo; Buck, R. P.
CS Dep. Chem., Univ. North Carolina, Chapel Hill, NC, 27514, USA
SO Journal of the Electrochemical Society (1988), 135(3), 609-15
CODEN: JESOAN; ISSN: 0013-4651
DT Journal
LA English
AB Polyvinyl chloride films, doped with Aliquat chloride or Aliquat ferro/ferricyanide, were studied by the a.c. impedance and d.c. polarization methods. Effects of composition variation and temperature on conductivity and capacitances were measured. It is probable for M/F/M cells, where M = metal and F = membrane film, that interfacial charge transfer is electrochem. (e.g., redox) at the interfaces for high applied voltages, regardless of the single Aliquat salt used, and charge conduction in the bulk is ionic. There is no evidence for electronic conductivity even for mixture of ferricyanide/ferrocyanide. Redox reactions of trace O, H₂O or other impurities are involved at the interfaces when there is no principal reaction possible, such as oxidation of metal or ferrocyanide, or reduction of ferricyanide. At low voltages, less than the breakdown voltage, very low currents are passed, probably with some minor electron hopping along percolation paths formed by plasticizer plus ionic electrolytes in the films. In M/S/F/S/M cells, where S = electrolyte solution and M and F are defined above, ionic motion along the partly aqueous channels formed on percolation paths dominates the conduction process. There is relatively rapid surface ion exchange with solution, although blocking can be observed
IT 114714-74-8
RL: PRP (Properties)

(PVC film doped with Aliquat ferricyanide and, impedance and
electrolytic polarization of)

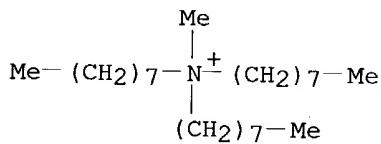
RN 114714-74-8 CAPIUS

CN 1-Octanaminium, N-methyl-N,N-dioctyl-, (OC-6-11)-hexakis(cyano-C)ferrate(4-
) (4:1) (9CI) (CA INDEX NAME)

CM 1

CRN 22061-11-6

CMF C25 H54 N

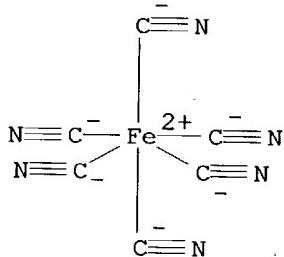


CM 2

CRN 13408-63-4

CMF C6 Fe N6

CCI CCS



IT 114737-22-3

RL: PRP (Properties)

(PVC film doped with Aliquat ferrocyanide and, impedance and
electrolytic polarization of)

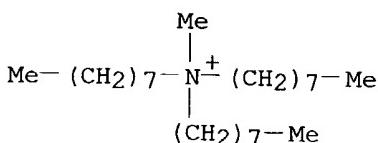
RN 114737-22-3 CAPIUS

CN 1-Octanaminium, N-methyl-N,N-dioctyl-, (OC-6-11)-hexakis(cyano-
κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 22061-11-6

CMF C25 H54 N

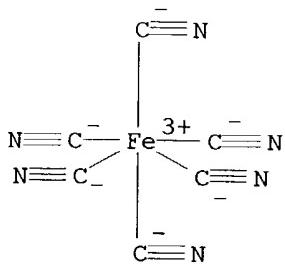


CM 2

CRN 13408-62-3

CMF C6 Fe N6

CCI CCS



L6 ANSWER 20 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1987:563900 CAPLUS

DN 107:163900

TI **Electrochemical studies of polypyrrole doped with ferrocyanide anions**

AU Zagorska, M.; Wycislik, H.; Przyluski, J.

CS Inst. Inorg. Technol., Warsaw Univ. Technol., Warsaw, 00-664, Pol.

SO Synthetic Metals (1987), 20(3), 259-68

CODEN: SYMEDZ; ISSN: 0379-6779

DT Journal

LA English

AB Thin films of polypyrrole-ferrocyanide were characterized by using a rotating ring-disk **electrode**. The total amount of ferrocyanide was removed from the system in the 1rst reduction-oxidation cycle if an appropriately low potential is applied during pyrrole polymerization. If the polymerization potential reaches higher values than 0.6 V vs. SCE in aqueous solns.,

a significant irreversibility of the redox reaction results, leading in turn to the existence of non-removable anions in the polymer film. The linear relation between the amount of released dopant registered at the ring and the film thickness indicates a homogeneous distribution of the dopant within the polypyrrole matrix.

IT 14589-06-1, Tris(tetrabutylammonium)hexacyanoferrate(3-)

RL: PRP (Properties)

(**electrochem.** polymerization of pyrrole on platinum disk in acetonitrile containing, ferrocyanide-doped polypyrrole films from)

RN 14589-06-1 CAPLUS

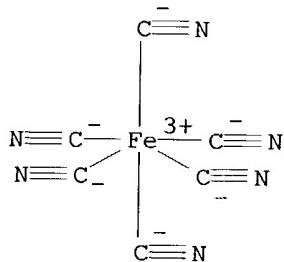
CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano-κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

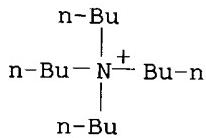
CMF C6 Fe N6

CCI CCS



CM 2

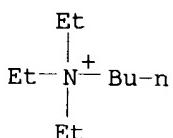
CRN 10549-76-5
CMF C16 H36 N



L6 ANSWER 21 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1987:451136 CAPLUS
 DN 107:51136
 TI Use of ion-selective **electrodes** for determination of quaternary ammonium salts
 AU Sukhoruchkina, A. S.; Kashcheev, S. V.; Mikhailova, S. D.
 CS USSR
 SO Voprosy Khimii i Khimicheskoi Tekhnologii (1986), 81, 45-9
 CODEN: VKKCAJ; ISSN: 0321-4095
 DT Journal
 LA Russian
 AB Ion-selective **electrodes** containing Bu₄NBr, Et₃BuNBr, and K₃(Et₃BuN)(Fe(CN)₆) as electroactive compds. in PVC/di-Bu phthalate were used for determining quaternary ammonium salts by direct potentiometry or potentiometric titration
 IT 110304-98-8
 RL: ANST (Analytical study)
 (in ion-selective **electrodes** for quaternary ammonium salts)
 RN 110304-98-8 CAPLUS
 CN 1-Butanaminium, N,N,N-triethyl-, potassium (OC-6-11)-hexakis(cyano-C)ferrate(4-) (1:3:1) (9CI) (CA INDEX NAME)

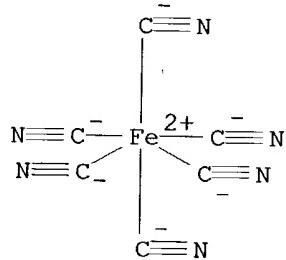
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CRN 23614-75-7
CMF C10 H24 N



CM 2

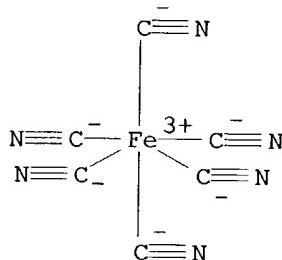
CRN 13408-63-4
CMF C6 Fe N6
CCI CCS



L6 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1987:157191 CAPLUS
DN 106:157191
TI Synthesis and spectroscopic characterization of polypyrrole containing ferrous cyanide anions
AU Zagorska, M.; Pron, A.; Lefrant, S.; Kucharski, Z.; Suwalski, J.; Bernier, P.
CS Dep. Chem., Warsaw Univ. Technol., Warsaw, 00664, Pol.
SO Synthetic Metals (1987), 18(1-3), 43-8
CODEN: SYMEDZ; ISSN: 0379-6779
DT Journal
LA English
AB Conducting polypyrrole [30604-81-0]-ferrous cyanide films or powders were obtained by **electrochem.** or chemical oxidation of pyrrole in solns. containing ferrous and/or ferric cyanide anions. Moessbauer effect studies showed that $\text{Fe}(\text{CN})_6^{4-}$ is the only iron species detectable in **electrochem.** prepared polypyrrole films. Ferrous cyanide anion was also the dominant dopant in the samples synthesized chemical Elemental anal. and IR studies confirmed the presence of iron cyanide anions in the samples. The conductivity of polypyrrole-ferrous cyanides was lower than observed in other conducting polypyrrole-based systems and decreased by approx. half upon 30 day exposure to air.
IT 14589-06-1
RL: PRP (Properties)
(polypyrrole doped with, Moessbauer spectra and elec. conductivity of)
RN 14589-06-1 CAPLUS
CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano-
κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

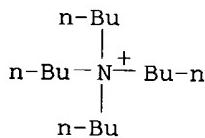
CM 1

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



CM 2

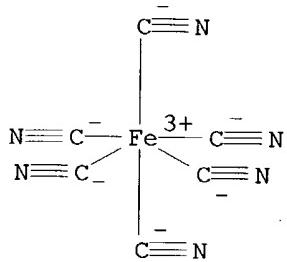
CRN 10549-76-5
 CMF C16 H36 N



L6 ANSWER 23 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1986:157920 CAPLUS
 DN 104:157920
 TI **Electrochemical** measurements in the solvents hexamethylphosphoric triamide and hexamethylthiophosphoric triamide
 AU Kraml, Gottfried; Gritzner, Gerhard
 CS Inst. Chem. Technol. Anorg. Stoffe, Johannes-Kepler-Univ., Linz, A-4040, Austria
 SO Journal of the Chemical Society, Faraday Transactions 1: Physical Chemistry in Condensed Phases (1985), 81(11), 2875-88
 CODEN: JCFTAR; ISSN: 0300-9599
 DT Journal
 LA English
 AB The Lewis-type donor and acceptor properties of HMPT (I) [680-31-9] and (Me₂N)₃PS (II) [3732-82-9] were investigated by changes in half-wave potentials vs. bis(biphenyl)chromium and variations in Gibbs free energies of transfer for cations. The solvatochromic shifts of acetylacetone(N,N,N',N'-tetramethylethylenediamine)copper(II) perchlorate [35821-86-4], bis(cyano)bis(1,10-phenanthroline)iron(II) [14768-11-7], and bis(cyano)bis(3,4,7,8-tetramethyl-1,10-phenanthroline)iron(II) [87718-20-5] were also studied. The differing interactions of I and II with Na⁺, Tl⁺, Ag⁺, and Cd²⁺ are discussed in terms of hard and soft donor solvents. Polarog. and voltammetric data are presented for 15 compds. in I and 14 compds. in II; the compds. studied include perchlorates, trifluoromethanesulfonates, O₂, perylene [198-55-0], ferrocene [102-54-5], and bis(biphenyl)chromium tetraphenylborate [74858-56-3].
 IT 14589-06-1
 RL: PRP (Properties)
 (polarog. and voltammetric properties of, in HMPT and its thio derivative)
 RN 14589-06-1 CAPLUS
 CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano-
 κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

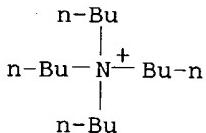
CM 1

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



CM 2

CRN 10549-76-5
CMF C16 H36 N

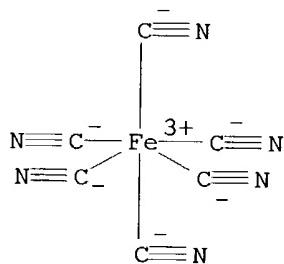


L6 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1986:101201 CAPLUS
DN 104:101201
TI Convenient synthesis of tris(tetraethylammonium) hexacyanoferrate(III) and its use as an oxidant with tunable redox potential
AU Mascharak, Pradip K.
CS Dep. Chem., Univ. California, Santa Cruz, CA, 95064, USA
SO Inorganic Chemistry (1986), 25(3), 245-7
CODEN: INOCAJ; ISSN: 0020-1669
DT Journal
LA English
AB (NET₄)₃[Fe(CN)₆] was conveniently prepared by reacting NET₄ClO₄ and K₃Fe(CN)₆ in MeOH. Cyclic voltammetric studies in mixed solvents like CH₃CN-H₂O demonstrated a pos. shift in E_{1/2} values with increasing amts. of the protic solvent. The redox potential of the oxidant can be varied over a range of 1.0 V. This dependence was successfully exploited in oxidizing reduced rubredoxin analog, (NET₄)₂[Fe(SPh)₄], in a predominantly organic solvent where such oxidation was otherwise not possible. Use of this oxidant with tunable potential to oxidize metal-containing active sites in hydrophobic pockets of proteins is suggested.
IT 14837-73-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and tunable redox potential of)
RN 14837-73-1 CAPLUS
CN Ethanaminium, N,N,N-triethyl-, (OC-6-11)-hexakis(cyano- κ C)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

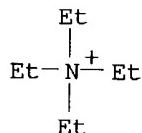
CRN 13408-62-3

CMF C6 Fe N6
CCI CCS



CM 2

CRN 66-40-0
CMF C8 H20 N



L6 ANSWER 25 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1983:134189 CAPLUS
DN 98:134189
TI Solvent effects on redox potentials. Studies in N-methylformamide
AU Gritzner, G.
CS Inst. Chem. Technol. Anorg. Stoffe, Johannes Kepler Univ., Linz, A-4040,
Austria
SO Journal of Electroanalytical Chemistry and Interfacial Electrochemistry
(1983), 144(1-2), 259-77
CODEN: JEIEBC; ISSN: 0022-0728
DT Journal
LA English
AB The redox behavior of LiClO₄, NaClO₄, KClO₄, RbClO₄, CsClO₄, TiClO₄, Ba(ClO₄)₂, Cu(CF₃SO₃)₂, Cd(CF₃SO₃)₂, Zn(CF₃SO₃)₂, Zn(ClO₄)₂, (Et₄N)₃Fe(CN)₆, (Bu₄N)₃Fe(CN)₆, (Et₄N)₃Mn(CN)₆, (Bu₄N)₃Mn(CN)₆, ferrocene, bis(biphenyl)chromium tetrphenylborate, and perylene was studied in N-methylformamide by polarog. and cyclic voltammetry. Standard redox potentials were estimated from polarog. half-wave potentials, measured vs. bis(biphenyl)chromium as a reference redox system, of reversible or nearly reversible electrode processes. The data were compared with the redox potentials vs. bis(biphenyl)chromium in formamide and DMF. Since the dielec. consts. of these 3 solvents differ considerably, models for the correlation of redox potentials with solvent parameters were evaluated with regard to their ability to predict differences in redox potentials of a given system in these solvents. Purely electrostatic concepts could not account for the observed changes in redox potentials from one solvent to another. Considering interactions of the solvent mols. as donors with cations as acceptors yielded a good correlation between the donor number of the solvents and the redox potentials for cations that were reduced to the resp. metal amalgams.
IT 14837-73-1
RL: PROC (Process)

(polarog. and voltammetry of, in N-methylformamide, redox potential in relation to)

RN 14837-73-1 CAPLUS

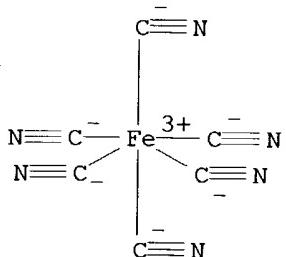
CN Ethanaminium, N,N,N-triethyl-, (OC-6-11)-hexakis(cyano- κ C) ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

CMF C6 Fe N6

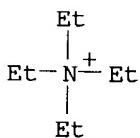
CCI CCS



CM 2

CRN 66-40-0

CMF C8 H20 N



IT **14589-06-1**

RL: PRP (Properties)

(polarog. of, in methylformamide)

RN 14589-06-1 CAPLUS

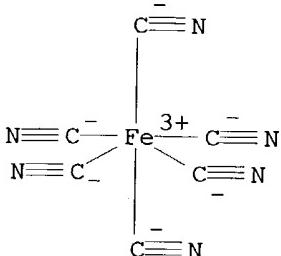
CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano- κ C) ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

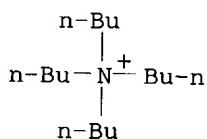
CMF C6 Fe N6

CCI CCS



CM 2

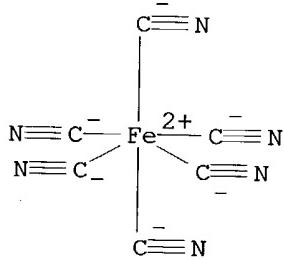
CRN 10549-76-5
CMF C16 H36 N



L6 ANSWER 26 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1981:211521 CAPLUS
 DN 94:211521
 TI **Electrochemical photovoltaic cells/stabilization and optimization of II-VI semiconductors**
 AU Noufi, R.; Tench, D.; Warren, L.
 CS Rockwell Int. Corp., Thousand Oaks, CA, USA
 SO Report (1980), SERI/TR-8002/T1, 73 pp. Avail.: NTIS
 From: Energy Res. Abstr. 1980, 5(24), Abstr. No. 37851
 DT Report
 LA English
 AB Stabilization of n-CdSe against photodissoln. was achieved for the MeOH-(Et4N)4Fe(CN)6-(Et4N)3Fe(CN)6 system. No degradation of the photocurrent or the **electrode** surface, even in the presence of traces of H2O, was observed for runs of \leq 700 h at 6 mA/cm2 and approx. air-mass-1 intensity. With higher quality single-crystal CdSe, stable short-circuit photocurrents of 15-17 mA/cm2 and an open-circuit voltage of 0.7 V were obtained, corresponding to a conversion efficiency of .apprx.5%. Preliminary evaluation of a series of S-containing 1,2-dithiolene metal complexes for stabilization of Cd chalcogenide photoanodes in solution was completed. For the 1st time, a conducting polymer film (derived from pyrrole) was **electrochem.** deposited on a semiconductor **electrode**. This could represent a breakthrough in the use of hydrophobic films to protect semiconductor photoanodes from dissoln./degradation Mixed CdSe-CdTe solid solution **electrodes** were found to exhibit a min. in both the flatband potential and the bandgap at .apprx.65% CdTe. Both of these shifts would have a detrimental effect on the solar conversion efficiency.
 IT 14096-02-7 14837-73-1
 RL: USES (Uses)
 (photoelectrochem. cell containing methanolic, cadmium selenide, stabilization of)
 RN 14096-02-7 CAPLUS
 CN Ethanaminium, N,N,N-triethyl-, (OC-6-11)-hexakis(cyano-C)ferrate(4-) (4:1) (9CI) (CA INDEX NAME)

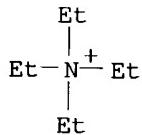
CM 1

CRN 13408-63-4
CMF C6 Fe N6
CCI CCS



CM 2

CRN 66-40-0
CMF C8 H20 N

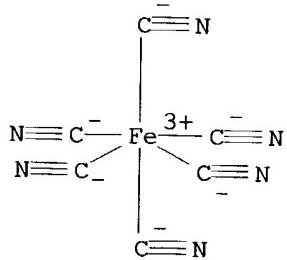


RN 14837-73-1 CAPLUS

CN Ethanaminium, N,N,N-triethyl-, (OC-6-11)-hexakis(cyano-κC)ferrate(3-)
(3:1) (9CI) (CA INDEX NAME)

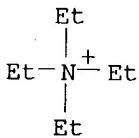
CM 1

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



CM 2

CRN 66-40-0
CMF C8 H20 N



L6 ANSWER 27 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
 AN 1979:619327 CAPLUS
 DN 91:219327
 TI Polarographic and voltammetric studies of tetrabutylammonium hexacyanoferrate(III) and tetrabutylammonium hexacyanomanganate(III) in non-aqueous solvents
 AU Messina, A.; Gritzner, G.
 CS Inst. Inorg. Chem., Tech. Univ. Vienna, Vienna, A 1060, Austria
 SO Journal of Electroanalytical Chemistry and Interfacial Electrochemistry (1979), 101(2), 201-9
 CODEN: JEIEBC; ISSN: 0022-0728
 DT Journal
 LA English
 AB $(\text{Bu}_4\text{N})_3\text{Mn}(\text{CN})_6$ was studied by polarog. and cyclic voltammetry in formamide, MeOH, EtOH, N-methylformamide, etc. Similar studies were carried out for $(\text{Bu}_4\text{N})_3[\text{Fe}(\text{CN})_6]$ in the solvents: formamide, N-methylformamide, dichloromethane, butyrolactone, etc. The half-wave potentials of the redns. $(\text{Bu}_4\text{N})_3\text{Mn}(\text{CN})_6$ to $(\text{Bu}_4\text{N})_4\text{Mn}(\text{CN})_6$ and $(\text{Bu}_4\text{N})_3\text{Fe}(\text{CN})_6$ to $(\text{Bu}_4\text{N})_4\text{Fe}(\text{CN})_6$ vs. bis(biphenyl)chromium(I)/bis(biphenyl)chromium(0) as a reference redox system were found to vary with the nature of the solvent. Comparison with data previously obtained for the resp. tetraethylammonium salts of hexacyanoferrate(III) and hexacyanomanganate(III) showed that the redox behavior of these compds. is influenced by both the solvent and the tetraalkylammonium ions. Correlations exist between the half-wave potentials of $(\text{Bu}_4\text{N})_3\text{Mn}(\text{CN})_6$ and $(\text{Bu}_4\text{N})_3\text{Fe}(\text{CN})_6$ and both the acceptor number of the solvents and the free enthalpies of transfer of the chloride ion. The results are discussed in the concept of donor-acceptor interactions.

IT 53682-43-2P

RL: PREP (Preparation)

(formation of, electrochem., solvent effect in)

RN 53682-43-2 CAPLUS

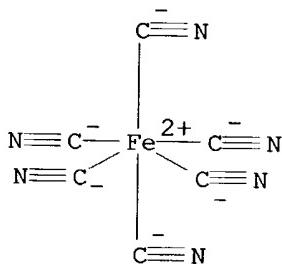
CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano-C)ferrate(4-) (4:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-63-4

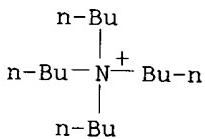
CMF C6 Fe N6

CCI CCS



CM 2

CRN 10549-76-5
CMF C16 H36 N



IT 14589-06-1

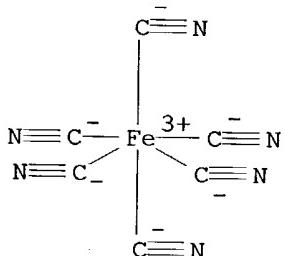
RL: RCT (Reactant); RACT (Reactant or reagent)
(reduction of, **electrochem.**, solvent effect in)

RN 14589-06-1 CAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano-
κC)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

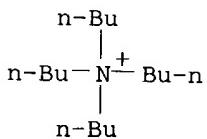
CM 1

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



CM 2

CRN 10549-76-5
CMF C16 H36 N



L6 ANSWER 28 OF 29 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1978:519619 CAPLUS

DN 89:119619

TI Solvent effects on the redox potentials of tetraethylammonium
hexacyanomanganate(III) and hexacyanoferrate(III)

AU Gritzner, G.; Danksagmueller, K.; Gutmann, V.

CS Inst. Inorg. Chem., Tech. Univ. Vienna, Vienna, Austria

SO Journal of Electroanalytical Chemistry and Interfacial Electrochemistry

(1978), 90(2), 203-10

CODEN: JEIEBC; ISSN: 0022-0728

DT Journal

LA English

AB $(Et_4N)_3Mn(CN)_6$ was studied in formamide, N-methylformamide, MeOH, propylene carbonate, N,N-dimethylthioformamide, N-methylthio-2-pyrrolidinone, butyrolactone, MeCN, Me₂SO, DMF, N-methyl-2-pyrrolidinone, nitromethane, and tetramethylene sulfone employing polarog. and voltammetric techniques. Reversible or nearly reversible behavior for the reaction $Mn(CN)_6^{3-}/Mn(CN)_6^{4-}$ was observed in most solvents on the stationary Pt **electrode**. The reaction $Mn(CN)_6^{3-}/Mn(CN)_6^{4-}$ was studied on both the dropping Hg **electrode** and the stationary Pt **electrode**. Besides the reaction $Mn(CN)_6^{3-}/Mn(CN)_6^{4-}$ several anodic waves due to successive reactions of Hg with the cyano-ligand of the complex occurred at the dropping Hg **electrode**. The variation of E_{1/2} and 1/2 (E_{pa} + E_{pc}) values for anodic and cathodic peaks vs. bisphenylchromium(I)/bisbiphenylchromium(0) as reference redox system of the processes $Mn(CN)_6^{3-}/Mn(CN)_6^{2-}$, $Mn(CN)_6^{3-}/Mn(CN)_6^{4-}$, and $Fe(CN)_6^{3-}/Fe(CN)_6^{4-}$ with the nature of the solvent is discussed within the donor-acceptor concept. The preparation of $(Et_4N)_3Mn(CN)_6$ and $(Bu_4N)_3Mn(CN)_6$ is described.

IT 14837-73-1

RL: PRP (Properties)

(redox reaction of system containing, solvent effect on)

RN 14837-73-1 CAPLUS

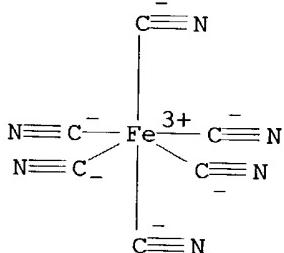
CN Ethanaminium, N,N,N-triethyl-, (OC-6-11)-hexakis(cyano- κ C)ferrate (3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

CMF C6 Fe N6

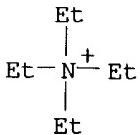
CCI CCS



CM 2

CRN 66-40-0

CMF C8 H20 N



AN 1976:584037 CAPLUS
DN 85:184037
TI Outer-sphere coordination effects on the redox behavior of the hexacyanoferrate(3-)/hexacyanoferrate(4-) couple in non-aqueous solvents
AU Gritzner, G.; Danksagmueller, K.; Gutmann, V.
CS Inst. Inorg. Chem., Tech. Univ., Vienna, Austria
SO Journal of Electroanalytical Chemistry and Interfacial Electrochemistry (1976), 72(2), 177-85
CODEN: JEIEBC; ISSN: 0022-0728
DT Journal
LA English
AB The polarog. behavior of tetrabutylammonium hexacyanoferrate was studied in N-methylpyrrolidinone, DMF, MeCN, Me₂SO, N,N-dimethylthioformamide, 1,2-dichloroethane, propanediol carbonate, MeNO₂, EtOH, MeOH and HOAc using Bu₄NClO₄ as supporting electrolyte. A polarog. reversible electrode process was found in all solvents but HOAc. The large shift in half-wave potentials (vs. bis(biphenyl)chromium(I) as a reference ion) is interpreted on the basis of donor-acceptor interactions between the hexacyanoferrate ions and solvent mols. and also between the hexacyanoferrate ions and cations of the supporting electrolyte. The considerable difference in half-wave potentials between Et₄NClO₄ and Bu₄NClO₄ is discussed within the framework of this concept.

IT 14096-02-7 14589-06-1 14837-73-1
53682-43-2

RL: PRP (Properties)

(spectrum of, in acetonitrile and aqueous solns. containing tetraethylammonium

perchlorate and tetrabutylammonium perchlorate, polarog. in relation to)

RN 14096-02-7 CAPLUS

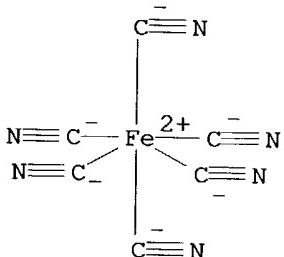
CN Ethanaminium, N,N,N-triethyl-, (OC-6-11)-hexakis(cyano-C)ferrate(4-) (4:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-63-4

CMF C6 Fe N6

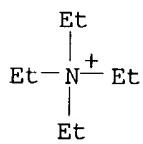
CCI CCS



CM 2

CRN 66-40-0

CMF C8 H20 N



RN 14589-06-1 CAPLUS

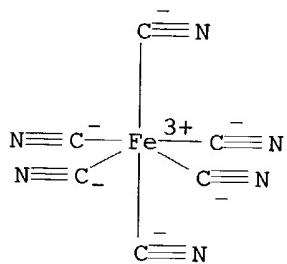
CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano- κ C)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

CMF C6 Fe N6

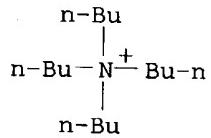
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



RN 14837-73-1 CAPLUS

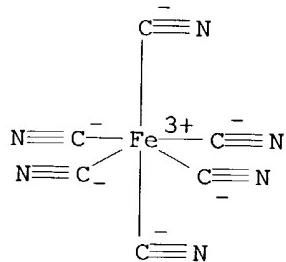
CN Ethanaminium, N,N,N-triethyl-, (OC-6-11)-hexakis(cyano- κ C)ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 13408-62-3

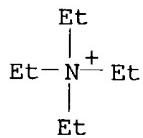
CMF C6 Fe N6

CCI CCS



CM 2

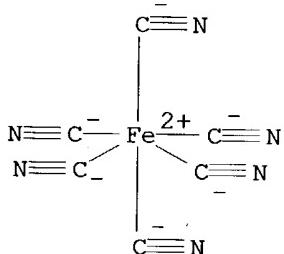
CRN 66-40-0
CMF C8 H20 N



RN 53682-43-2 CAPLUS
CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-11)-hexakis(cyano-C)ferrate(4-)
(4:1) (9CI) (CA INDEX NAME)

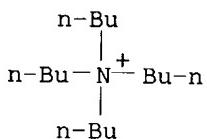
CM 1

CRN 13408-63-4
CMF C6 Fe N6
CCI CCS



CM 2

CRN 10549-76-5
CMF C16 H36 N



=> d his

(FILE 'HOME' ENTERED AT 13:47:06 ON 29 OCT 2004)

L1 FILE 'REGISTRY' ENTERED AT 13:47:12 ON 29 OCT 2004
L1 STRUCTURE uploaded
L2 50 S L1 SAM
L3 STRUCTURE uploaded
L4 127 S SSS FUL L1 AND L3

L5 FILE 'CAPLUS' ENTERED AT 13:51:33 ON 29 OCT 2004
L5 104 S L4
L6 29 S L5 AND (SENSOR OR DETECTOR OR ELECTRODE OR ELECTROCHEM? OR ME

=> s 15 and (h2o2 or peroxide)
141032 H2O2
185422 PEROXIDE
43204 PEROXIDES
202142 PEROXIDE
(PEROXIDE OR PEROXIDES)
L7 2 L5 AND (H2O2 OR PEROXIDE)

=> s 17 not 16
L8 1 L7 NOT L6

=> d bib ab hitstr

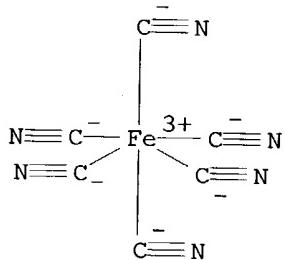
L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:50363 CAPLUS
DN 116:50363
TI Oxidation reactions of [Fe₄S₄(S-2,4,6-(iso-Pr)3C₆H₂)₄]²⁻ and an oxidative conversion of the Fe₄S₄ core into an Fe₃S₄ center
AU Roth, E. K. H.; Jordanov, J.
CS Serv. Phys., Dep. Rech. Fondam., Grenoble, 38041, Fr.
SO Inorganic Chemistry (1992), 31(2), 240-3
CODEN: INOCAJ; ISSN: 0020-1669
DT Journal
LA English
AB The oxidns. of [NEt₄]₂[Fe₄S₄(Stibt)₄] (I; HStibt = HSC₆H₄-2,4,6-CHMe₂) by a variety of chemical oxidants, chosen to offer a large range of oxidizing potentials, have been investigated in a selection of reaction media and at room temperature. When moderate oxidants [Fe(CN)₆]³⁻, Ag⁺, I₂, CPh₃⁺ are used in aprotic media (CH₂Cl₂, CH₃CN), a 1-electron metal-based oxidation occurs (type I oxidants). The same moderate oxidants in an aqueous medium (DMF/H₂O or CH₃CN/H₂O) give a 2-electron oxidation and generate a [3Fe-4S]⁺ center (type II oxidants). Here, the oxidative mechanism possibly proceeds via an intermediate [4Fe-4S]³⁺ species. Oxidation by a stronger oxidant such as air O₂ in aprotic media also produces a [3Fe-4S]⁺ center (type II oxidant). The 3Fe species thus created is unstable and decomps. rapidly. Oxidation by an even stronger oxidant, H₂O₂, in an aqueous medium (DMF/H₂O) leads to the immediate formation of a radical (gz = 2.051, gy = 2.005, gx = 1.984) of probable organic nature (type III oxidant). Some implications of these results for the structural interconversions of Fe-S clusters in proteins are discussed.

IT 14837-73-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of iron sulfido propylbenzenethiolato cubane by, solvent effect on)
RN 14837-73-1 CAPLUS

CN Ethanaminium, N,N,N-triethyl-, (OC-6-11)-hexakis(cyano- κ C) ferrate(3-) (3:1) (9CI) (CA INDEX NAME)

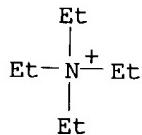
CM 1

CRN 13408-62-3
CMF C6 Fe N6
CCI CCS



CM 2

CRN 66-40-0
CMF C8 H20 N



=> log y
COST IN U.S. DOLLARS

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

CA SUBSCRIBER PRICE

| | SINCE FILE | TOTAL |
|--|------------|---------|
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 161.26 | 319.41 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| CA SUBSCRIBER PRICE | ENTRY | SESSION |
| | -21.00 | -21.00 |

STN INTERNATIONAL LOGOFF AT 13:59:24 ON 29 OCT 2004

=> d his full

(FILE 'HOME' ENTERED AT 10:17:43 ON 29 OCT 2004)

FILE 'CPLUS' ENTERED AT 10:17:49 ON 29 OCT 2004

L1 621 SEA (((HYDROGEN (1A) PEROXIDE) OR ("H₂O₂")) AND (FERROCYANIDE
OR FERRICYANIDE)) /AB

L2 159 SEA L1 AND (ELECTRODE OR REDUCE OR REDUCING OR VOLTAGE OR
AMPEROMET? OR POTENTIAL)
D 20 ALL
D L2 50 ALL

| | Type | L # | Hits | Search Text | DBs | Time Stamp |
|---|------|-----|------|--|---------------------------------------|---------------------|
| 1 | BRS | L3 | 92 | (reduc\$ near5 (ferricyanide or ferrocyanide or (ferrate near3 cyano))) | EPO;
JPO;
DERWEN
T | 2004/10/29
09:06 |
| 2 | BRS | L4 | 436 | ((hydrogen near1 peroxide) or ("H.sub.2 O.sub.2")) and electrode and (ferricyanide or ferrocyanide or (ferrate near1 cyano)) | USPAT;
EPO;
JPO;
DERWEN
T | 2004/10/29
09:26 |
| 3 | BRS | L5 | 436 | 4 not 3 | USPAT;
EPO;
JPO;
DERWEN
T | 2004/10/29
09:26 |